



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 10/038,012 | 01/02/2002 | Vinay Vasant Kulkarni | P8000 | 6612 |

24739 7590 09/27/2005

CENTRAL COAST PATENT AGENCY
PO BOX 187
AROMAS, CA 95004

| |
|----------|
| EXAMINER |
|----------|

TRAN, NGHI V

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2151

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,012

Applicant(s)

KULKARNI ET AL.

Examiner

Nghi V. Tran

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Interpretations

1. In claims 1-3, 5-7 and 13-17, the Applicant wrote, "a system architecture" that the language of the claim raises a question as to whether the claim is directed merely to statutory subject matter. The claims is directly or indirectly limited to tangible embodiments as a system. Therefore, the examiner reverses the right to interpret "a system architecture" as a tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 5-7, and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. With respect to claims 1 and 13, the claims recite the limitation "the architecture". There is insufficient antecedent basis for this limitation in the claim. "the architecture" is understood for --the system architecture--.

Art Unit: 2151

5. Claims 2-3, 5-7 and 14-17 are also rejected under 35 U.S.C. 112, second paragraph because it directly or indirectly depends on claims 1 and 13.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-7, and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang et al., U.S. Patent Application Publication No. 2004/0221292 (hereinafter Chiang), in view of Britton et al., U.S. Patent Application Publication No. 2002/0178170 (hereinafter Britton), and further in view of Fontana et al., WO 99/15986 (hereinafter Fontana).

8. With respect to claims 1 and 13, Chiang teaches a system architecture for adapting at least one legacy system for functional interface with at least one component system [see abstract and figs. 1-3] comprising:

- at least one component wrapper [paragraph 0050 i.e. object modeling] within the architecture for describing the at least one legacy system [fig.5];

Art Unit: 2151

- at least one component object [507 i.e. source] within the architecture for describing the at least one component system [fig.5 and paragraphs 0066-0067]; and
- a connectivity bus [paragraphs 0059 and 0081 i.e. connector] within the architecture between the at least one component object and the at least one component wrapper, for extending legacy function to the at least one component system [paragraphs 0027 and 0075-0078];
- characterized in that a user operating a GUI [103 i.e. Netscape IE] has access to legacy services in an automated client/server exchange wherein heterogeneous data formats and platform differences of the separate systems are resolved in an object-oriented way that is transparent to the user [paragraphs 0032-0035 and 0084].

However, Chiang is silent on a data reconciliation bus for data redundancy between legacy systems in the event of more than one legacy system.

In a communication system, Britton discloses a data reconciliation bus for data redundancy between legacy systems in the event of more than one legacy system [paragraph 0043].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Chiang in view of Britton by adding a data reconciliation bus for data redundancy between legacy systems in the event of more than one legacy system because this feature is both minimized and related such that queries can be executed using the minimal execution time [Britton, paragraph 0043]. It

Art Unit: 2151

is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Chiang in view of Britton in order to remove redundant information from the legacy databases in a similar manner dependent on the capabilities of the specific database [Britton, paragraph 0043].

However, both Chiang and Britton do not explicitly show the data reconciliation bus utilizes an in-memory entity-relationship (ER) model of each legacy system of the system architecture.

In a communication system, Fontana suggests the data reconciliation bus [20 i.e. repository] utilizes an in-memory entity-relationship (ER) model [i.e. information as to the relationship between the entities and objects stored in the repository] of each legacy system of the system architecture [see abstract].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify both Chiang and Britton, and further in view of Fontana by utilizing an in-memory entity-relationship (ER) model of each legacy system of the system architecture because this feature allows a developer to perform various administrative tasks [Fontana, pg.4, Ins.9-16]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to transform to other object models or business process models [Fontana, pg.3, Ins.23-27].

9. With respect to claim 2, Chiang further teaches one component is interfaced with more than one legacy system in the event of more than one system [paragraph 0027].

Art Unit: 2151

10. With respect to claim 3, Chiang further teaches one legacy system is interfaced with more than one component system in the event of more than one component system [paragraphs 0015-0018].

11. With respect to claim 5, Chiang further teaches entity-relationship modeling is used to model legacy services [paragraphs 0017 and 0051].

12. With respect to claim 6, Chiang further teaches a component wrapper is completely generated from an object model of legacy services [paragraph 0050 i.e. object modeling and fig.5].

13. With respect to claim 7, Chiang further teaches heterogeneity of data between a legacy system and a component wrapper is resolved by a language adapter interface [paragraphs 0027 and 0016].

14. With respect to claim 14, Chiang is silent on the data model stored in memory is a unified normalized layer.

In a communication system, Britton discloses the data model stored in memory is a unified normalized layer [paragraphs 0043-0045].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Chiang in view of Britton by adding a unified normalized layer because this feature is both minimized and related such that queries

Art Unit: 2151

can be executed using the minimal execution time [Britton, paragraph 0043]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Chiang in view of Britton in order to remove redundant information from the legacy databases in a similar manner dependent on the capabilities of the specific database [Britton, paragraph 0043].

15. With respect to claim 15, Chiang further teaches the first and second functions are automated [paragraphs 0028 and 0062].

16. With respect to claim 16, Chiang further teaches the first and second functions are user executed [paragraphs 0031-0035].

27. With respect to claim 17, Chiang further teaches the functions propagate data in an object oriented environment [paragraphs 0027 and 0063].

Response to Arguments

18. Applicant's arguments with respect to claims 1-3, 5-7, and 13-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2151

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2151

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Patent Examiner
Art Unit 2151

NT


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER